A new species of *Gerstaeckeria* in Peru, first record for South America (Coleoptera, Curculionidae)

CHARLES W. O'BRIEN¹

INTERNATIONAL PROGRAMS IN AGRICULTURE PURDUE UNIVERSITY, LAFAYETTE, INDIANA 47907

The genus Gerstaeckeria is widespread in the new world but not previously recorded from South America. Species are known from Canada, the United States, Mexico, Guatemala, the West Indies, and the Galapagos Islands.

In 1967 I found four specimens in the collection of the California Academy of Sciences of a new species of *Gerstaeckeria* from coastal "lomas" in Peru. While I was in Peru in 1968, Dr. Pedro Aguilar took me to some "lomas" north of Lima where more than 1000 weevils were collected. "Lomas" are low hills which because of their elevation have vegetation in an otherwise completely barren desert. Condensation from the seasonal fogs provides sufficient water for a variety of plants.

The dominant plant in the area where the weevils were collected was a species of Portulacaceae *Calandrinia ruizi* MacBride, which had succulent leaves that in most cases showed evidence of extensive feeding by weevils. The weevils were abundant under stones, but were found in very great numbers under pads of dry cow dung. As many as 87 specimens were taken under one pad of dung. There were no cacti in the immediate area where the specimens were collected, and this seems significant as all *Gerstaeckeria* previously have been associated with cactus. The weevils are apterous and the large number collected in the area would seem to indicate a host other than cactus for this new species. I hope that it will be possible to determine the host in the future.

Specimens were kept alive and fed on samples of the Portulacaceae for two weeks and then they were placed on a Chilean species of *Opuntia* on which they fed and lived for four months longer.

Gerstaeckeria Champion

Gerstaeckeria Champion, 1905, Biologia Centrali-Americana, Coleoptera, 4 (4): 470.

Type-species: Acalles bifasciatus Gerstaecker, 1860, Stettiner Entomol. Zeit. 21:393. Designated by Champion loc. cit.

Body robust, clothed with scales. Rostrum approximately as long as pronotum, received in deep groove in prosternum and mesosternum. Eyes partially covered by ocular lobes when rostrum rests in sternal groove. Antennae with the 7 funicular segments coarsely pubescent; club densely finely pubescent; scrobes directed toward base of eyes. Pronotum wider than long, strongly punctate.

¹Submitted as Journal Paper No. 3824, Purdue University Agricultural Experiment Station, Lafayette, Ind.

Vol. 23

Scutellum not visible. Elytra striate, strial punctures always distinct, each with a single scale; humeri lacking; suture fused; hind wings lacking. Ventral abdominal segments 2 through 4 subequal; with deep straight sutures. Femora unarmed; all tibiae uncinate; hind tibia with praemucro. Tarsi with fine ventral pubescence; tarsal claws simple.



FIGURES 1-5. Gerstaeckeria peruana n. sp. 1. aedeagus, lateral view. 2. aedeagus, dorsal view. 3. aedeagus, dorsal view of apex. 4. spermatheca (stippling indicates reticulate surface). 5. female eighth sternite (stippling indicates degree of sclerotization).

Gerstaeckeria peruana NEW SPECIES

Black, clothed with recumbent and erect white, brown, and black scales. ROSTRUM broad, stout; basal half carinate with very coarse deep dense punctures, punctures less coarse, less deep, and sparser towards apex; basal third clothed with dense erect broad scales; apical twothirds clothed with progressively sparser and finer setae. Scrobes deep, lateroventrae. ANTENNAE inserted at basal third of rostrum; reddish brown; club oval, less than twice as long as wide. HEAD densely clothed with recumbent to suberect brown, black, and white scales; with deep, coarse, dense punctures; frons lacking fovea and clothed with erect to suberect white scales. PROTHORAX with a weak median carina; with coarse deep punctures, a few confluent; scales erect or suberect. ELYTRA with sides subparallel, narrowing towards apex, moderately convex; strial punctures round to elongate oval; intervals all evenly elevated, wider than strial punctures; densely clothed with recumbent and erect brown, white, and black scales; erect scales usually at least one-third longer than recumbent scales; lacking distinct posthumeral vittae; distinct white postmedian fascia. venter evenly clothed with dense pale brown scales; punctures deep, coarse, and dense; apex of fifth abdominal segment with coarse to fine setae. LEGS with femora annulate with white and dark brown scales; tibiae clothed mainly with white scales, with a sub-basal dark brown area, outer apical area with a double setal comb; third tarsal segment more than one-third wider than second; claws widely divergent.

This species is more closely allied to the Mexican and U. S. species than to those of the Galapagos and West Indian Islands. The genitalia are similar to though distinct from those of *opuntiae* Pierce (1912) and *basalis* Leconte (1876) but they can be readily separated from these and related Mexican species because of the unusual scales on the elytra. No other related species has the short recumbent scales combined with the elongate erect scales except *mutillaria* (Gerstaecker) (1860), and in this species the scales are even more greatly elongated and black and white only, causing this species to resemble a hairy mutillid.

There is a wide range of color variation. The commonest color pattern is a somewhat tessellate appearance with a distinct postmedian fascia or pair of fasciae. There are, however, rather pale colored individuals in which the fasciae are barely visible. Various intermediate color patterns are also to be found among the specimens before me.



FIGURES 6-7. Gerstaeckeria peruana n. sp. 6. Holotype male, dorsal view. 7. Allotype female, lateral view.

For the 1022 specimens on hand the range in length is 3.5 to 6.4 mm. Approximately 90% of these specimens lie between 4.0 and 5.5 mm. The holotype male, allotype female, and numerous paratypes are in my personal collection. Paratypes also are in the following collections: Dr. P. G. Aguilar, F., Universidad San Marcos, Lima, Peru; American Musuem of Natural History; Dr. Horace Burke, Texas A. & M.; California Academy of Sciences, San Francisco; Field Museum of Natural History, Chicago; La Molina, Universidad Agraria, Lima, Peru; Dr. E. L. Sleeper, Long Beach State College, Calif., and the United States National Museum.

HOLOTYPE: PERU, Lachay, *circa* 80 km. N. W. Lima, VII-23-1968, costal loma, under dry cow dung, L. and C. W. O'Brien.

Body length: 4.2 mm. Male.

Allotype: Same data.

Body length: 5.2 mm. Female.

PARATYPES: Same data (904 specimens); Same data, collector P. Aguilar F. (112); 2 km. south Lachay, *circa* 78 km. N. W. Lima, VII-23-1968, cactus area, under stones, L. and C. W. O'Brien (2); 12 miles S. E. of Camana, S. W. Peru, IV-3-1951, E. S. Ross, stones, coastal loma (3); 40 miles S. of Nasca, Peru, IV-1-1951, E. S. Ross, coastal loma (1).

I wish to gratefully acknowledge the invaluable assistance of Dr. Pedro Aguilar, without whose help it would have been impossible to succeed in my search for *Gerstaeckeria* in Peru in the short time available. I should also like to thank Dr. Ross Arnett of Purdue University for his assistance with the photographs in this paper.

LITERATURE CITED

GERSTAECKER, C. E. 1860. Beitrage zur Kenntniss der Curculionen. Stettiner Entomol. Zeit. 21:376-398.

LECONTE, J. L. 1876. In LeConte, J. L. and G. H. Horn, The Rhynchophora of America North of Mexico. Proc. Amer. Philosophical Soc. 15:240-243.

PIERCE, D. W. 1912. Systematic notes and descriptions of some weevils of economic and biological importance. Proc. U. S. Nat. Mus. 42:155-170.

The Genus *Pandeleteinus* Champion with the Description of a New Species from Mexico (Curculionidae, Tanymecini)¹

ANNE T. HOWDEN

Research Associate, Carleton University, Ottawa, Ontario

HISTORY

When Schaeffer (1908, p. 216) described Pandeleteius submetallicus he stated quite frankly that it looked "somewhat strange" in Pandeleteius. Champion (1911, p. 206) described the genus Pandeleteinus for submetallicus Schaeffer and until 1959 it remained the only species assigned to the genus. At the same time that he removed submetallicus from Pandeleteius, Champion noted (1911, p. 186) that Pandeleteius ovipennis Schaeffer also differed from his concept of

CHAMPION, G. C. 1905. Rhynchophora. Biologia Centrali-Americana, Coleoptera 4 (4):1-750.

¹This is the fifth paper in a series on the Tanymecini.